Appl. No. 09/905,337   <u>PATENT</u>
Amdt. sent September 1, 2006
Amendment

<u>REMARKS/ARGUMENTS</u>

Claims 1-7, 9-27, and 29-36 are pending in the current application and stand
rejected.

Claim 24 is rejected under 35 U.S.C. §112, second paragraph, as lacking proper
antecedent basis.

Claims 1-7 and 9-30 are rejected under 35 U.S.C. §102(b) as being anticipated by
U.S. Patent Number 5,774,660 to Brendel et al.

Claims 1, 15, 20, 24, 27-29, and 36 have been amended and claim 28 is canceled.
Support for the claim amendments can be found throughout the specification and, for example,
with reference to Figure 24. No new matter has been added.

<u>Telephone interview</u>

On August 29, 2006 a telephonic interview with the examiner was conducted.
George Yee and Steven Raney participated on behalf of the Applicant. Applicant sincerely
thanks the examiner for granting the interview and for his comments concerning the proposed
claim amendments. Applicant has now amended the claims as discussed during the interview
and in light of the examiner's comments. It is believed that the amended claims overcome the
§102(b) rejection and that all claims are now in condition for allowance.

<u>Office Action Summary</u>

Applicants thank the examiner for confirming that Box 2a on the Office Action
Summary page was inadvertently checked and that the current Office Action is non final.

<u>Rejection under 35 U.S.C. §112</u>

Claim 24 is rejected under 35 U.S.C. §112 as lacking proper antecedent basis.
The Examiner correctly noted that claim 24 should depend from claim 23, and not from claim
20. This error has been corrected. Accordingly, Applicant requests withdrawal of the §112
rejection.

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PAGE 12/16 * RCVD AT 9/1/2006 5:14:29 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-3/4 * DNIS:2738300 * CSID:6503262422 * DURATION (mm-ss):04-40

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Rejection under 35 U.S.C. §102(b)

Claim 1

Claim 1 is amended to recite, in part, a system comprising "a file server capable of communicating with one or more clients ... a plurality of storage elements organized into pairs for storing a plurality of files ... wherein when a client requests file information for a requested file from the file server ... the file server ... returns to the client information including a storage element within the pair of storage elements that is to be accessed, the storage element being identified based upon use of the storage system, and wherein the client initiates I/O operations with the identified storage element to access the requested file absent the file server."

By contrast, Brendel discloses a system in which a client requests resources by sending its request packets to a load balancer. The load balancer selects a server and forwards the client's request to the selected server. The server then responds to the client with the requested resource. In this arrangement, Brendel's client does not initiate an I/O request directly with the selected server. Instead, the load balancer initiates such requests on behalf of the client. See e.g., Figs. 7-8 and Brendel at col. 6, lines 31-33 ("Thus, the incoming data packets are routed by the balancer node but outgoing data packets bypass the balancer node").

Because incoming client requests are routed through the load balancer, Brendel does not teach or suggest "when a client requests file information for a requested file from the file server ... the file server ... returns to the client information including a storage element ... and wherein the client, absent the file server, initiates I/O operations with the identified storage element to access the requested file." Thus, Brendel does not anticipate the present invention. For these reasons, Applicant respectfully requests reconsideration and allowance of claim 1 as currently amended.

Claims 2-14

Claims 2-14 depend from claim 1 and believed allowable for at least the reason that they depend from an allowable base claim, as well as for the additional limitations they recite.

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Claims 15-19

Claim 15 is amended to recite a system comprising "a first host computer having a file system server, the first host computer capable of communicating with a second host computer having a file system client ... a storage system having a plurality of disk drives organized into pairs ... wherein when a file system client requests file information ... the file system server ... returns to the file system client information including a disk drive within the pair of disk drives that is to be accessed ... and wherein the file system client, absent the file system server, initiates I/O operations with the identified disk drive to access the requested file."

For the reasons given above, claim 15 is believed allowable over Brendel. Claims 16-19 depend from claim 15 and are believed allowable for at least the reason that they depend from an allowable base claim. Therefore, Applicant respectfully requests reconsideration and allowance of claims 15-19.

Claims 20-26

Claim 20 includes limitations similar to those discussed above and is therefore also allowable over Brendel. Specifically, claim 20 is amended to recite, in part, a system comprising "a first host computer having a file system server, the first host computer capable of communicating with a second host computer having a file system client ... a plurality of storage systems, each of the plurality of storage systems having a plurality of disk drives, the plurality of disk drives from the plurality of storage systems being collectively organized into pairs for storing a plurality of files ... wherein when a file system client requests file information ... the file system server ... returns to the file system client information including a disk drive within the pair of disk drives that is to be accessed ... and wherein the file system client, absent the file system server, initiates I/O operations with the identified disk drive to access the requested file."

Claim 20 is believed allowable over Brendel for the reasons previously given. Claims 21-26 depend from claim 20 and are believed allowable for at least the reason that they depend from an allowable base claim. Applicant respectfully requests reconsideration and allowance of claims 20-26.

Claims 27 and 29-35

Claim 27 recites, in part, a method for optimizing data access comprising "organizing a plurality of storage elements into pairs for storing a plurality of files ... upon receiving a request for a requested file, determining which pair of storage elements has the requested file, and then determining which storage element within the pair of storage elements is to be accessed; and returning file access information including a storage element within the pair of storage elements that is to be accessed, the storage element being identified based upon use of the storage system, wherein I/O operations are initiated with the identified storage element using the file access information, and wherein said file access information is returned to a client thereby allowing the client to retrieve the requested file absent a ffile server."

Claim 27 is believed allowable over Brendel for the reasons set forth above. Claims 29-35 depend from claim 27 and are believed allowable because they depend from an allowable base claim. Therefore, Applicant respectfully requests reconsideration and allowance of claims 27-35.

Claim 36

Claim 36 recites, in part, a method for optimizing data access comprising "organizing a plurality of disk drives into pairs for storing a plurality of files ... upon the file server receiving a request for a requested file from a client, causing the file server to determine which pair of disk drives has the requested file by using the file information, and then causing the file server to identify which disk drive within the pair of disk drives is to be accessed by using the access load information; and forwarding information relating to the identified disk drive to the client thereby allowing the client to initiate I/O operations, absent the file server, to retrieve the requested file." Reconsideration and allowance of claim 36 is requested for the reasons previously given.
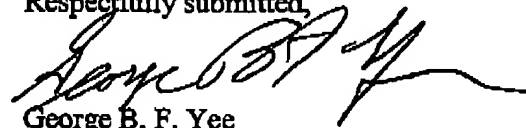
CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

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      If the Examiner believes a telephone conference would expedite prosecution of

this application, please telephone the undersigned at 650-326-2400.

                                    Respectfully submitted,

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